THE EFFECTS OF DAXI PLUS APPLICATION ON SOIL PROPERTIES AND GROWTH PERFORMANCE OF *Oryza sativa* (MR220)

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Final Year Project Report Submitted In
Partial Fulfillment of the Requirements for the
Degree of Bachelor of Science (Hons.) Plantation Management and Technology
in the Faculty of Plantation and Agrotechnology
Universiti Teknologi MARA

JULY 2015

DECLARATION

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I hereby declare that I have checked this project and in my opinion, this project is adequate in terms of scope and quality for the award of the degree of Bachelor of Science (Hons.) Plantation Technology and Management, Faculty of Plantation and Agrotechnology, Universiti Teknologi MARA.

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ABSTRACT

THE EFFECTS OF DAXI PLUS APPLICATION ON SOIL PROPERTIES AND GROWTH PERFORMANCE OF *Oryza sativa* (MR220)

The information on the effect of Daxi plus fertilizer on soil properties and growth performance of paddy field in Malaysia is still limited. A research was carried out to observe and investigate the effect of Daxi plus fertilizer on soil properties which are soil pH and nutrient content such as phosphorus, potassium, calcium, and magnesium and growth performance of paddy, number of leaves, number of tillers, plant height of paddy, wet weight and dry weight. The research was conducted in a greenhouse at UiTM Melaka, Kampus Jasin, and paddy seed that was used is MR220 variety. The different rates of fertilizers were placed on each treatment, while the Ground Magnesium Limestone (GML) and NPK green fertilizer were used as control treatment. The five treatments with four replications for each treatment were made in this study and the experimental design was arranged in Randomized Complete Block Design (RCBD). The result showed that the application of Daxi plus fertilizer have effect on soil nutrient content, number of leaves, number of tillers, plant height, wet weight, and dry weight of paddy. Although the different value in each treatment is small, but the research showed that the Daxi plus fertilizer can help the plant in the process of improving soil properties, nutrient content in the soil and growth performance of paddy. The research should be continued in order to get the optimal rate of Daxi plus fertilizer with the potential of the high yield prior harvest.

Keywords: Paddy MR220, Daxi plus fertilizer, Ground Magnesium Limestone